



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/732,781

12/10/2003

Michael Wayne Brown

AUS920030341US1

6902

46073

7590

02/07/2008

IBM CORPORATION (VE)  
C/O VOLEL EMILE  
P. O. BOX 162485  
AUSTIN, TX 78716

EXAMINER

FITZPATRICK, ATIBA O

ART UNIT

PAPER NUMBER

4192

MAIL DATE

DELIVERY MODE

02/07/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/732,781	<b>Applicant(s)</b> BROWN ET AL.	
	<b>Examiner</b> Atiba O. Fitzpatrick	<b>Art Unit</b> 4192	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 December 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/10/03, 04/05/04</u> .                                      | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Specification***

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.
2. The abstract of the disclosure is objected to because it contains the application title on the same page. Correction is required. See MPEP § 608.01(b).

### ***Claim Objections***

3. Claim 8 is a duplicate of claim 7, so one of them must be cancelled. Claim 16 is a duplicate of claim 15, so one of them must be cancelled. Claim 24 is a duplicate of claim 23, so one of them must be cancelled.

### ***Claim Rejections - 35 USC § 101***

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 9, 10, 11, 12, 13, 14, 15, and 16 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The phrases “computer program product on a computer readable medium”, “computer program product”, or “code” are not appropriate since these do not fall into any statutory category.

***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 6, 14, 22, and 30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The use of "/" in these claims is unclear. This symbol is interpreted to mean "or".

***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claim 1 and 25 is rejected under 35 U.S.C. 102(b) as being anticipated by USPGPubN 20020116197 (Erten).

10. As per claim 1, Erten teaches a speech making improvement method using stored data, the data being audio and video data of participants at a conference, the method comprising the steps of:

Art Unit: 4192

indicating an expression that may have been exhibited by the participants during the conference (Erten: paragraph 5, line 6: "speech from other people"; paragraph 8, line 1: "voice or voices of one or more speakers") to search for (Erten: abstract: "A visual speech recognizer determines a figure of merit for at least one speech element based on at least one image received from at least one visual transducer"); determining, using the stored data in conjunction with an automated facial decoding system, whether at least one participant exhibited the indicated expression (Erten: Fig. 2: 74); and analyzing the video data representing the at least one participant exhibiting the expression and the audio data representing what was being said when the at least one participant exhibited the expression to improve a speaker's speech making ability (Erten: Fig. 2: 78).

11. As per claim 25, arguments used to reject claim 25 are analogous to arguments used to reject claim 1.

### ***Claim Rejections - 35 USC § 103***

a. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 2, 3, 5, 9, 10, 11, 13, 17, 18, 19, 21, 26, 27, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPGPubN 20020116197 (Erten) applied to claim 1 above further in view of USPN 6585521 (Obrador).

13. As per claim 2, Erten teaches the method of Claim 1. Erten does not teach the analyzing step includes the step of charting expressions exhibited by the at least one participant over time.

14. Obrador teaches the analyzing step includes the step of charting expressions exhibited by the at least one participant over time (Obrador: Fig. 4a: 480; Figs. 4-6).

15. Thus, it would have been obvious for one of ordinary skill in the art at the time the invention was made to implement the teachings of Obrador into Erten since Erten suggests a audio visual speech processing application in general and Obrador suggests the beneficial use of charting for speech video indexing based on user emotional feedback as to "Video indexing allows a user to have easy access to different sections of the video sequence" (Obrador: col 1, line 21) in the analogous art of speech and video processing.

16. As per claim 3, Erten teaches the method of Claim 1. Erten does not teach the analyzing step includes the step of displaying a percentage of time the expression is exhibited by the at least one participant.

17. Obrador teaches the analyzing step includes the step of displaying a percentage of time the expression is exhibited by the at least one participant (Obrador: Fig. 4a: 430, 440; Figs. 4-6).

18. The rationale used to combine the references for claim 3 is analogous to the rationale used for claim 2.

19. As per claim 5, Erten teaches the method of Claim 1. Erten does not teach the analyzing step includes the step of displaying a percentage of time participants exhibited an expression.

20. Obrador teaches the analyzing step includes the step of displaying a percentage of time participants exhibited an expression (Obrador: Fig. 4a: 430, 440; Figs. 4-6).

21. The rationale used to combine the references for claim 5 is analogous to the rationale used for claim 2.

22. As per claim 9, Erten teaches improving speeches using stored data, the data being audio and video data of participants at a conference, the computer program product comprising:

Art Unit: 4192

indicating an expression that may have been exhibited by the participants during the conference (Erten: paragraph 5, line 6: "speech from other people"; paragraph 8, line 1: "voice or voices of one or more speakers") to search for (Erten: abstract: "A visual speech recognizer determines a figure of merit for at least one speech element based on at least one image received from at least one visual transducer"); determining, using the stored data in conjunction with an automated facial decoding system, whether at least one participant exhibited the indicated expression (Erten: Fig. 2: 74); and analyzing the video data representing the at least one participant exhibiting the expression and the audio data representing what was being said when the at least one participant exhibited the expression to improve a speaker's speech making ability (Erten: Fig. 2: 78). Erten does not teach a computer program product on a computer readable medium and code means.

23. Obrador teaches a computer program product on a computer readable medium as well as code means (Obrador: col 5, line 15: "one skilled in the art will appreciate that these aspects can also be stored on or read from other types of computer program products or computer-readable media").

24. Thus, it would have been obvious for one of ordinary skill in the art at the time the invention was made to implement the teachings of Obrador into Erten since Erten suggests a audio visual speech processing application in general and Obrador suggests the beneficial use of program product on a computer readable medium for speech video



Art Unit: 4192

indexing based on user emotional feedback for efficiency, flexibility, and cost effectiveness in the analogous art of speech and video processing.

25. As per claim 10, Erten in view of Obrador teaches the computer program product of claim 9. Erten does not teach the analyzing code means includes the code means of charting expressions exhibited by the at least one participant over time.

26. Obrador teaches the analyzing code means includes the code means (Obrador: col 5, line 15: "one skilled in the art will appreciate that these aspects can also be stored on or read from other types of computer program products or computer-readable media") of charting expressions exhibited by the at least one participant over time (Obrador: Fig. 4a: 480; Figs. 4-6).

27. Thus, it would have been obvious for one of ordinary skill in the art at the time the invention was made to implement the teachings of Obrador into Erten since Erten suggests a audio visual speech processing application in general and Obrador suggests the beneficial use of charting for speech video indexing based on user emotional feedback as to "Video indexing allows a user to have easy access to different sections of the video sequence" (Obrador: col 1, line 21) in the analogous art of speech and video processing.

As per claim 11, Erten in view of Obrador teaches the computer program product of

Art Unit: 4192

Claim 9. Erten does not teach the analyzing code means (Obrador: col 5, line 15:“one skilled in the art will appreciate that these aspects can also be stored on or read from other types of computer program products or computer-readable media”) includes the code means of displaying a percentage of time the expression is exhibited by the at least one participant.

28. Obrador teaches the analyzing code means includes the code means of displaying a percentage of time the expression is exhibited by the at least one participant (Obrador: Fig. 4a: 430, 440; Figs. 4-6).

29. The rationale used to combine the references for claim 11 is analogous to the rationale used for claim 10.

30. As per claim 13, Erten in view of Obrador teaches the computer program product of Claim 9. Erten does not teach the analyzing code means (Obrador: col 5, line 15:“one skilled in the art will appreciate that these aspects can also be stored on or read from other types of computer program products or computer-readable media”) includes the code means of displaying a percentage of time participants exhibited an expression.

31. Obrador teaches the analyzing code means includes the code means of displaying a percentage of time participants exhibited an expression (Obrador: Fig. 4a: 430, 440; Figs. 4-6).

32. The rationale used to combine the references for claim 13 is analogous to the rationale used for claim 10.

33. As per claim 17, "means for" language is used without there being structure in the claims; therefore 35 U.S.C. 112 (6) is being invoked and for each limitation, the structure is being read into the claim from the specification.

34. Erten teaches a speech making improvement apparatus using stored data, the data being audio and video data of participants at a conference (Erten: paragraph 5, line 6: "speech from other people"; paragraph 8, line 1: "voice or voices of one or more speakers"), the apparatus comprising:  
means for determining, using the stored data (the structure is determined to be memory device) in conjunction with an automated facial decoding system (the structure is determined to be a processor), whether at least one participant exhibited the indicated expression (Erten: Fig. 2: 74); and means for analyzing (the structure is determined to be a processor) the video data representing the at least one participant exhibiting the expression and the  
audio data representing what was being said when the at least one participant exhibited the expression to improve a speaker's speech making ability (Erten: Fig. 2: 78). Erten does not teach means for indicating an expression that may have been exhibited by the participants during the conference to search for.

35. Obrador teaches means (the structure is determined to be GUI, icon, or button) for indicating an expression that may have been exhibited by the participants during the conference to search for (Fig. 7: 760).

36. Thus, it would have been obvious for one of ordinary skill in the art at the time the invention was made to implement the teachings of Obrador into Erten since Erten suggests a audio visual speech processing application in general and Obrador suggests the beneficial use of program product on a computer readable medium for speech video indexing based on user emotional feedback for efficiency, flexibility, and cost effectiveness in the analogous art of speech and video processing.

37. As per claim 18, "means for" language is used without there being structure in the claims; therefore 35 U.S.C. 112 (6) is being invoked and for each limitation, the structure is being read into the claim from the specification.

38. Erten teaches the apparatus of Claim 17. Erten does not teach the analyzing means includes means for charting expressions exhibited by the at least one participant over time.

39. Obrador teaches the analyzing means includes means for charting (the structure is determined to be a graph that is displayed on a screen) expressions exhibited by the

at least one participant over time (Obrador: Fig. 4a: 480; Figs. 4-6).

40. Thus, it would have been obvious for one of ordinary skill in the art at the time the invention was made to implement the teachings of Obrador into Erten since Erten suggests a audio visual speech processing application in general and Obrador suggests the beneficial use of charting for speech video indexing based on user emotional feedback as to "Video indexing allows a user to have easy access to different sections of the video sequence" (Obrador: col 1, line 21) in the analogous art of speech and video processing.

41. As per claim 19, "means for" language is used without there being structure in the claims; therefore 35 U.S.C. 112 (6) is being invoked and for each limitation, the structure is being read into the claim from the specification.

42. Erten teaches the apparatus of Claim 17. Erten does not teach the analyzing means includes means for displaying a percentage of time the expression is exhibited by the at least one participant.

43. Obrador teaches the analyzing means (the structure is determined to be a processor) includes means for displaying a percentage of time (the structure is determined to be a proportion of time displayed on screen) the expression is exhibited

Art Unit: 4192

by the at least one participant (Obrador: Fig. 4a: 430, 440; Figs. 4-6).

44. The rationale used to combine the references for claim 19 is analogous to the rationale used for claim 18.

45. As per claim 21, “means for” language is used without there being structure in the claims; therefore 35 U.S.C. 112 (6) is being invoked and for each limitation, the structure is being read into the claim from the specification

46. Erten teaches the apparatus of Claim 17. Erten does not teach the analyzing means includes means for displaying a percentage of time participants exhibited an expression.

47. Obrador teaches the analyzing means (the structure is determined to be a processor) includes means for displaying a percentage of time (the structure is determined to be a proportion of time displayed on screen) participants exhibited an expression (Obrador: Fig. 4a: 430, 440; Figs. 4-6).

48. The rationale used to combine the references for claim 21 is analogous to the rationale used for claim 18.

49. As per claim 26, arguments used to reject claim 26 are analogous to arguments used to reject claim 2.

50. As per claim 27, arguments used to reject claim 27 are analogous to arguments used to reject claim 3.

51. As per claim 29, arguments used to reject claim 29 are analogous to arguments used to reject claim 5.

52. Claims 4 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPGPubN 20020116197 (Erten) applied to claim 1 above further in view of USPN 7117157 (Taylor).

53. As per claim 4, Erten teaches the method of claim 1. Erten does not teach the analyzing step includes the step of displaying a percentage of participants who exhibited the expression.

54. Taylor teaches the analyzing step includes the step of displaying a percentage of participants who exhibited the expression (Taylor: Fig. 16a-b; Fig. 33a-b: The expression being exhibited is the physical head angle and direction of view as observed by the camera).

55. Thus, it would have been obvious for one of ordinary skill in the art at the time the invention was made to implement the teachings of Taylor into Erten since Erten suggests a audio visual speech processing application in general and Taylor suggests the beneficial use of displaying the proportion of participants exhibiting an expression (directional glance) as to provide an indication of the proportion of time that a participant exhibited a certain gaze in the analogous art of speech and video processing.

56. As per claim 28, arguments used to reject claim 28 are analogous to arguments used to reject claim 4.

57. Claims 6 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPGPubN 20020116197 (Erten) applied to claim 1 above further in view of USPN 6816836 (Basu).

58. As per claim 6, Erten teaches the method of Claim 1. Erten does not teach the step of determining includes the step of passing the data through a regional/cultural filter for filtering out the expression if it is a regionally/culturally based expression.

59. Basu teaches the step of determining includes the step of passing the data through a regional/cultural filter for filtering out the expression if it is a regionally/culturally based expression (Basu: col 8, line 20: "Another way is to use filters and other simple



transformations on the original image or the face region”).

60. Thus, it would have been obvious for one of ordinary skill in the art at the time the invention was made to implement the teachings of Basu into Erten since Erten suggests a audio visual speech processing application in general and Basu suggests the beneficial use of region filtering for audio-visual speech detection as to filter out selective regions of the face in the analogous art of speech and video processing.

61. As per claim 30, arguments used to reject claim 30 are analogous to arguments used to reject claim 6.

62. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPGPubN 20020116197 (Erten) applied to claim 1 above further in view of USPN 5805745 (Graf).

63. As per claim 7, Erten teaches the method of Claim 1. Erten does not teach the determining step includes the step of passing the data through an individual filter for filtering out the expression if it is an expression particular to the participant.

64. Graf teaches the determining step includes the step of passing the data through an individual filter for filtering out the expression if it is an expression particular to the

participant (Graf: col 6, line 30: "It should be noted that if apriori knowledge exists regarding the person in the image being identified, the weights and score ranges can be specialized to identify a particular person's features. It should also be noted that if a position of a face in an image is known apriori, it is possible to eliminate many eye and mouth candidates simply based on their location within the image. If the image is part of a video, it is possible to eliminate some of the eye and mouth candidates by tracking head position or comparing two or more frames").

65. Thus, it would have been obvious for one of ordinary skill in the art at the time the invention was made to implement the teachings of Graf into Erten since Erten suggests a audio visual speech processing application in general and Graf suggests the beneficial use of filtering out a particular person's features for locating a subject's lips in a facial image as to isolate facial features of interest (lips) in the analogous art of speech and video processing.

66. As per claim 8, arguments analogous to those used for claim 7 also apply for claim 8.

67. Claims 12 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPGPubN 20020116197 (Erten) further in view of USPN 6585521 (Obrador) applied to claim 9 above further in view of USPN 7117157 (Taylor).

68. As per claim 12, Erten in view of Obrador teaches the computer program product of claim 9. Erten in view of Obrador does not teach the analyzing code means includes the code means of displaying a percentage of participants who exhibited the expression.

69. Taylor teaches the analyzing code means includes the code (Taylor: Fig.2: 32, 34, 38, 40, 66, 70) means of displaying a percentage of participants who exhibited the expression (Taylor: Fig. 16a-b; Fig. 33a-b: The expression being exhibited is the physical head angle and direction of view as observed by the camera).

70. Thus, it would have been obvious for one of ordinary skill in the art at the time the invention was made to implement the teachings of Taylor into Erten since Erten suggests a audio visual speech processing application in general and Taylor suggests the beneficial use of displaying the proportion of participants exhibiting an expression (directional glance) as to provide an indication of the proportion of time that a participant exhibited a certain gaze in the analogous art of speech and video processing.

71. As per claim 20, "means for" language is used without there being structure in the claims; therefore 35 U.S.C. 112 (6) is being invoked and for each limitation, the structure is being read into the claim from the specification

72. Erten in view of Obrador teaches the apparatus of Claim 17. Erten in view of Obrador does not teach the analyzing means includes means for displaying a percentage of participants who exhibited the expression.

73. Taylor teaches the analyzing means (the structure is determined to be a processor) includes means for displaying a percentage of participants (the structure is determined to be a graphed proportion that is displayed on screen) who exhibited the expression (Taylor: Fig. 16a-b; Fig. 33a-b: The expression being exhibited is the physical head angle and direction of view as observed by the camera).

74. Thus, it would have been obvious for one of ordinary skill in the art at the time the invention was made to implement the teachings of Taylor into Erten since Erten suggests a audio visual speech processing application in general and Taylor suggests the beneficial use of displaying the proportion of participants exhibiting an expression (directional glance) as to provide an indication of the proportion of time that a participant exhibited a certain gaze in the analogous art of speech and video processing.

75. Claims 14 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPGPubN 20020116197 (Erten) further in view of USPN 6585521 (Obrador) applied to claim 9 above further in view of USPN 6816836 (Basu).

Art Unit: 4192

76. As per claim 14, Erten in view of Obrador teaches the computer program product of Claim 9. Erten in view of Obrador does not teach the code means of determining includes the code means of passing the data through a regional/cultural filter for filtering out the expression if it is a regionally/culturally based expression.

77. Basu teaches the code means (Basu: col 19 line 25: “computer software including instructions or code for performing the methodologies of the invention, as described herein, may be stored in one or more of the associated memory devices (e.g., ROM, fixed or removable memory) and, when ready to be utilized, loaded in part or in whole (e.g., into RAM) and executed by a CPU”) of determining includes the code means of passing the data through a regional/cultural filter for filtering out the expression if it is a regionally/culturally based expression (Basu: col 8, line 20: “Another way is to use filters and other simple transformations on the original image or the face region”).

78. Thus, it would have been obvious for one of ordinary skill in the art at the time the invention was made to implement the teachings of Basu into Erten since Erten suggests a audio visual speech processing application in general and Basu suggests the beneficial use of region filtering for audio-visual speech detection as to filter out selective regions of the face in the analogous art of speech and video processing.

Art Unit: 4192

79. As per claim 22, “means for” language is used without there being structure in the claims; therefore 35 U.S.C. 112 (6) is being invoked and for each limitation, the structure is being read into the claim from the specification

80. Erten in view of Obrador teaches the apparatus of Claim 17. Erten in view of Obrador does not teach determining means includes means for passing the data through a regional/cultural filter for filtering out the expression if it is a regionally/culturally based expression.

81. Basu teaches determining means includes means for passing the data through a regional/cultural filter (the structure is determined to be a processor) for filtering out the expression if it is a regionally/culturally based expression (Basu: col 8, line 20: “Another way is to use filters and other simple transformations on the original image or the face region”).

82. Thus, it would have been obvious for one of ordinary skill in the art at the time the invention was made to implement the teachings of Basu into Erten since Erten suggests a audio visual speech processing application in general and Basu suggests the beneficial use of region filtering for audio-visual speech detection as to filter out selective regions of the face in the analogous art of speech and video processing.

83. Claims 15, 16, 23, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPGPubN 20020116197 (Erten) further in view of USPN 6585521 (Obrador) applied to claim 9 above further in view of USPN 5805745 (Graf).

84. As per claim 15, Erten in view of Obrador teaches the computer program product of Claim 9. Erten in view of Obrador does not teach the determining code means includes the code means of passing the data through an individual filter for filtering out the expression if it is an expression particular to the participant.

85. Graf teaches the determining code means (Graf: col 2, line 12: "DSP 14 uses memory 16 for program storage and as a scratch pad memory") includes the code means of passing the data through an individual filter for filtering out the expression if it is an expression particular to the participant (Graf: col 6, line 30: "It should be noted that if apriori knowledge exists regarding the person in the image being identified, the weights and score ranges can be specialized to identify a particular person's features. It should also be noted that if a position of a face in an image is known apriori, it is possible to eliminate many eye and mouth candidates simply based on their location within the image. If the image is part of a video, it is possible to eliminate some of the eye and mouth candidates by tracking head position or comparing two or more frames").

86. Thus, it would have been obvious for one of ordinary skill in the art at the time the invention was made to implement the teachings of Graf into Erten since Erten suggests a audio visual speech processing application in general and Graf suggests the beneficial use of filtering out a particular person's features for locating a subject's lips in a facial image as to isolate facial features of interest (lips) in the analogous art of speech and video processing.

87.

As per claim 16, arguments analogous to those used for claim 15 also apply for claim 16.

88. As per claim 23, "means for" language is used without there being structure in the claims; therefore 35 U.S.C. 112 (6) is being invoked and for each limitation, the structure is being read into the claim from the specification

89. Erten in view of Obrador teaches the apparatus of Claim 17. Erten in view of Obrador does not teach the determining means includes means for passing the data through an individual filter for filtering out the expression if it is an expression particular to the participant.

90. Graf teaches the determining means includes means for passing the data through an individual filter (the structure is determined to be a processor) for filtering out the expression if it is an expression particular to the participant (Graf: col 6, line 30: "It



Art Unit: 4192

should be noted that if apriori knowledge exists regarding the person in the image being identified, the weights and score ranges can be specialized to identify a particular person's features. It should also be noted that if a position of a face in an image is known apriori, it is possible to eliminate many eye and mouth candidates simply based on their location within the image. If the image is part of a video, it is possible to eliminate some of the eye and mouth candidates by tracking head position or comparing two or more frames”).

91. Thus, it would have been obvious for one of ordinary skill in the art at the time the invention was made to implement the teachings of Graf into Erten since Erten suggests a audio visual speech processing application in general and Graf suggests the beneficial use of filtering out a particular person's features for locating a subject's lips in a facial image as to isolate facial features of interest (lips) in the analogous art of speech and video processing.

92. As per claim 24, arguments analogous to those used for claim 23 also apply for claim 24.

### ***Double Patenting***

Art Unit: 4192

93. Claims 1, 6, 7, 8, 9, 14, 15, 16, 17, 22, 23, 24, 25, and 30 of this application conflict with claims 1, 2, 3, 5, 8, 9, 10, 12, 15, 16, 17, 19, 22, 23, 24, and 26 of Application No. 20050131744. 37 CFR 1.78(b) provides that when two or more applications filed by the same applicant contain conflicting claims, elimination of such claims from all but one application may be required in the absence of good and sufficient reason for their retention during pendency in more than one application. Applicant is required to either cancel the conflicting claims from all but one application or maintain a clear line of demarcation between the applications. See MPEP § 822.

94. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

95. A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

96. Claims 1, 6, 7, 8, 9, 14, 15, 16, 17, 22, 23, 24, 25, and 30 are rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1, 2, 3, 5, 8, 9, 10, 12, 15, 16, 17, 19, 22, 23, 24, and 26 of prior U.S. Patent No. 20050131744. This is a double patenting rejection.

97. As per claim 1, USPGPubN 20050131744 teaches a speech making improvement method using stored data, the data being audio and video data of participants at a conference, the method comprising the steps of: indicating an expression that may have been exhibited by the participants during the conference to search for (USPGPubN 20050131744: claim 1: line 10); determining, using the stored data (USPGPubN 20050131744: claim 5: line 5) in conjunction with an automated facial decoding system (USPGPubN 20050131744: claim 1: line 15), whether at least one participant exhibited the indicated expression (USPGPubN 20050131744: claim 1: line 17); and analyzing the video data representing the at least one participant exhibiting the expression and the audio data representing what was being said when the at least one participant exhibited the expression to improve a speaker's speech making ability (USPGPubN 20050131744: claim 1: line 19).

98. As per claim 6, USPGPubN 20050131744 teaches the method of Claim 1 wherein the step of determining includes the step of passing the data through a regional/cultural filter for filtering out the expression if it is a regionally/culturally based expression (USPGPubN 20050131744: claim 2: line 22).

99. As per claim 7, USPGPubN 20050131744 teaches the method of Claim 1 wherein the determining step includes the step of passing the data through an individual filter for filtering out the expression if it is an expression particular to the participant

(USPGPubN 20050131744: claim 3: line 27).

100. As per claim 8, USPGPubN 20050131744 teaches the method of Claim 1 wherein the determining step includes the step of passing the data through an individual filter for filtering out the expression if it is an expression particular to the participant (USPGPubN 20050131744: claim 3: line 27).

101. As per claims 9, 17, and 25, arguments for claims 9, 17, and 25 are analogous to those for claim 1.

102. As per claims 14, 22, and 30, arguments for claims 14, 22, and 30 are analogous to those for claim 6.

103. As per claims 15 and 23, arguments for claims 15 and 23 are analogous to those for claim 7.

104. As per claims 16 and 24, arguments for claims 16 and 24 are analogous to those for claim 8.

### ***Conclusion***

105. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Atiba Fitzpatrick whose telephone number is (571) 270-

Art Unit: 4192

5255. The examiner can normally be reached on M-F 7:30am-5pm (alternate Fridays off).

106. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pankaj Kumar can be reached on (571) 272-3011. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

107. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Atiba Fitzpatrick

Patent Examiner

/Pankaj Kumar/

Supervisory Patent Examiner, Art Unit 4192